EAGLE HILL
unconventional consulting

Introduction and Methodology Native Targeted Assessments and Snapshot

The Native Targeted Assessments are intended only as educational materials for station use. The analysis results are derived from data collected during Phase One of the System Technology Assessment. In Phase One, the Corporation for Public Broadcasting (CPB) and Eagle Hill Consulting conducted a system-wide survey to assess public media licensees' identified equipment and technology needs, anticipated capital and operating expenses, equipment expiration timelines, and projected available funds. The data collected and analyzed reflects respondents' recorded responses. 40% of native licensees submitted survey responses; the analysis accounts for only the unweighted responses of these stations.

Analyses for the Native Targeted Assessments used data collected during Phase One of the System Technology Assessment to inform targeted analyses of native radio licensees' funding needs, equipment technology needs, and equipment expiration timelines. Analysis categories for radio remained the same as in the initial assessment. Please see methodology from the initial assessment for additional information on those categories (p.10, CPB System Technology Assessment Final Report). Additional information on the overall assessment methodology can be found on p. 24 through 31 of the final report. Because of the limited sample size and 40% response rate, we used the unweighted data values when conducting the analysis of native licensees. Though these responses may not be representative of all native licensees, they provide some insight into the financial and technology needs of native stations.

Native licensees were already accounted for as a demographic data point in the initial dataset. We filtered by 'Native" "Yes." We then extracted the relevant unweighted values and worked only with these values as a wholly unique dataset.

Snapshot:

Overall Graphic:

The Native Licensee Snapshot overall graphic provides an overview of reported funding needs versus projected available funds. To generate these values, we:

- Calculated the sum of reported available funds by licensee for the years 2017, 2018, 2019, and 2020-2022.
- We divided the 2020-2022 figure by 3 for all summations, as it was determined in the initial assessment to be the most accurate estimation of 2020 values.
- After obtaining the sum of projected available funds, we summed all projected Capex and Opex values for each equipment bucket for native licensees.
- We then compared the projected funds to the anticipated costs. Any negative discrepancy in available funds to anticipated costs resulted in the recorded "gap" in funding.
- During the first technology assessment, methodological choices were made to use licensee-reported Engineers' aggregate Capex and Opex values across all equipment buckets to more accurately

estimate anticipated costs. For the Native Targeted Assessments, we maintained this methodological choice.

Timeline Graphics:

For the timeline graphic, we adopted the same methodology listed above to determine available funds and projected costs. We broke out these summations by year instead of showing them in aggregate and portrayed this information graphically to illustrate the gaps in funding over time.

Research Questions:

To drive targeted analysis of the data, we scoped out specific research questions that the Native Targeted Assessment would answer. The Native Targeted Assessments solely answer these research questions. They are below:

1) What are expected Opex and Capex costs for native licensees over the next three years? Are Capex or Opex expected to rise? If so, why?
2) What are native licensees' most pressing technology capital needs? Which, if any, of these needs were previously covered by PTFP funding?
3) What native licensees' RF technologies need replacement in the next five years? What impact could equipment expiration have on communities?

These research questions were assessed using native licensees' recorded responses to provide a granular analysis of the data and its impacts.

Impact Statement Source List:

Impact metrics were dependent on open source qualitative and quantitative data sources. Station information was sourced from station websites. A source list of additional open source resources is below:

America's Public Television Stations (APTS), http://apts.org/

Corporation for Public Broadcasting (CPB), *System Technology Assessment Final Report*, May 21, 2017, https://www.cpb.org/files/reports/Final_Report-CPB_System_Technology_Assessment_2017.pdf

CPB, "KGVA-FM Providing a Voice for the Community," October 2014, https://www.cpb.org/spotlight/kgva

In These Times, "Native Americans Fear GOP Budget Cuts Will be the Death of Tribal Radio," March 15, 2017, http://inthesetimes.com/rural-america/entry/19971/native-american-media-public-radio-corporation-for-public-broadcasting

Native Public Media, "Native Radio Survey", 2013

Native Public Media, "Native Radio Network Survey—Station Support Services", November 14, 2014

Native Public Media, "New Horizons Community Engagement Study," May 31, 2011

Native Licensees Face a $5.5 Million Funding Gap for Technology and Equipment Purchases over the Next Three Years

Native licensee respondents (40%) reported markedly low available funds over the next three years, culminating in an aggregate $5.5 million gap. Though this gap only represents a portion of native stations, it provides insight into the community's impending funding challenges over the next several years.

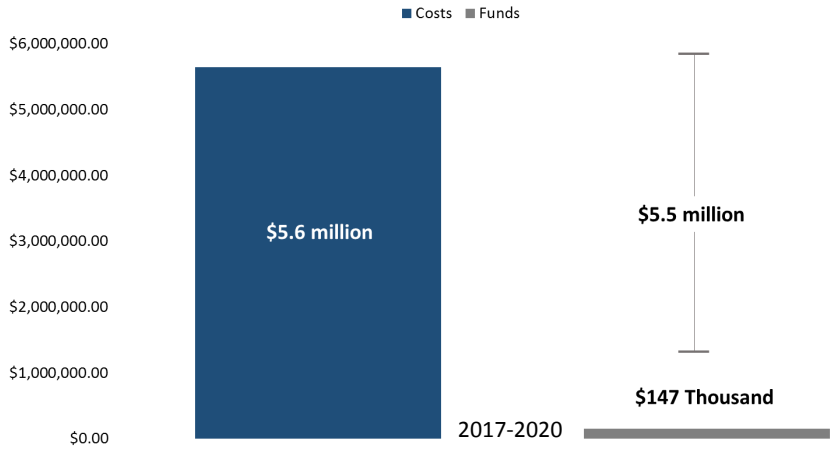
- Cross-referencing Engineer-reported expenses with General Manager (GM)-reported available funds from 2017-2020 reveals a $5.5 million gap in funding for native licensees.
- Anticipated funding gaps are high and expected to rise over time, as stations reported they would probably delay replacement of equipment because of insufficient funding.

Additional funding is needed to continue native licensees' ability to broadcast vital educational programming, public safety information, news, and civic and cultural information to its audience, which often relies on native stations as its sole source of information.

- Native licensees' reported available funding is particularly low potentially because of limited station resources' ability to strategically plan for and/or anticipate available funds over time.

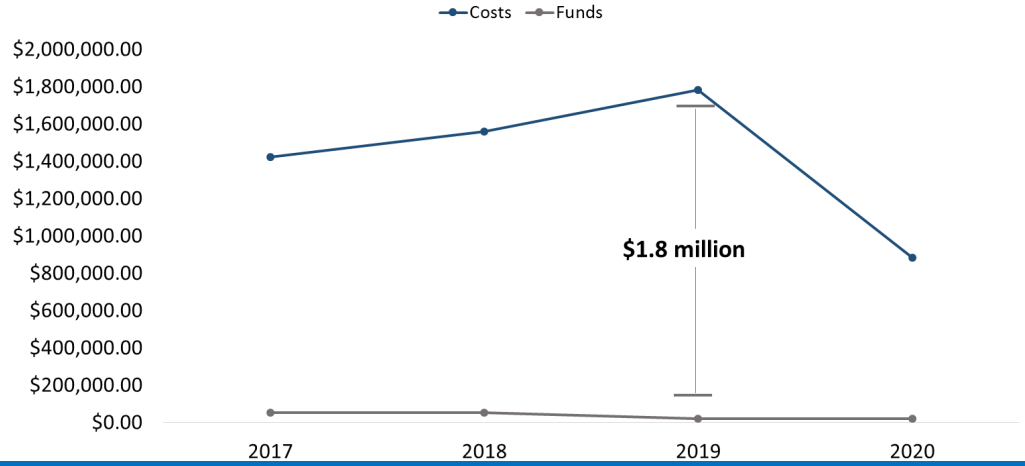
A comparison of native licensees' Engineer-reported financial needs and GM-reported expected funds revealed a $5.5 million gap in funding for equipment and technology for native licensees by 2020.

Native Licensees Face a $5.5 million Gap in Available Funds for Equipment and Technology Replacement and Operating Funds



Native licensees' funding gaps are expected to accumulate over time; Stations reported that they would delay replacing essential equipment and updating technologies because of a lack of funding

Native Licensees Funding Gap Expected to Rise Over Time, Leading to an Aggregate Gap of $5.5 million by 2020*



* 2020 costs appear to decrease, but that is due to methodological considerations that divided 2020-2022 data inputs by three; when multiplying 2020 values by three analysis shows that overall costs are expected to increase from 2019 to 2022

Native Licensees' Growing Funding Gap and Equipment Replacement Needs Could Disrupt Distribution and Development of Vital Content

Without resources to address funding gaps, native licensees could face operating challenges, disrupting a valuable public service. Native licensees are often the sole source of vital public safety, public health, education and cultural information, as well as local and national journalism to an underserved and geographically dispersed population.

- Native licensees reach the most underserved communities in the country; Efforts include providing vital public safety information to tribal populations nationwide, as well as adjacent listening communities that may otherwise lack broadband or communications access.
- In Nebraska, KGVA-FM, reaches more than 9,317 people in a broadcast coverage area of approximately 10,000 square miles, keeping listeners informed and promoting cultural integrity and diversity in a community of rural ranchers and farmers, four Indian tribes, and five Hutterite colonies.

The loss of PTFP funding—last funded nationally at $20 million in 2010—correlates with the increased gap in native licensees' available funds vs. their anticipated infrastructure and technology needs. PTFP funding provided critical aid for the replacement of necessary infrastructure and production technologies for native licensees, which may rely more on federal funding resources than other licensee groups.

Spotlight: Native stations disseminate critical public safety, cultural, and educational information.

In a survey conducted by Native Public Media, 93.9% of tribal populations listened to native radio stations. Native licensees provide a vital resources to populations that otherwise would have little access to news, cultural programming, and public safety information. As an example, in 2016, KLND in South Dakota suffered a weather event that shut down its broadcasting capabilities, as a result listeners had no access to news and emergency information until the station was able to resume service.

KILI Radio broadcasts 20 hours a day, seven days a week over 30,000 square miles in South Dakota and the panhandle of Nebraska, serving American Indian communities across three reservations and Rapid City, which rely on the station's cultural, public safety, news, and educational information.

The Voice of Denali KRFF-FM helps sustain and nurture Alaska Native languages and culture to preserve and enhance traditions.

KOJB provides educational programming, news, history and entertainment to the Leech Lake Band of Ojibwe Community and helps maintain their language and traditions.

Though KZPA-AM's native community is approximately 600, 1000s of listeners in-and-around Fort Yukon, AK depend on its coverage because it is the only station for miles. The local native population and adjacent listeners rely on KZPA's vital programming on search-and-rescue information, flood watches, and other public safety information.

Native Licensees Expect Capex and Opex to be Evenly Matched from 2017-2020, Necessitating a Dynamic Funding Approach

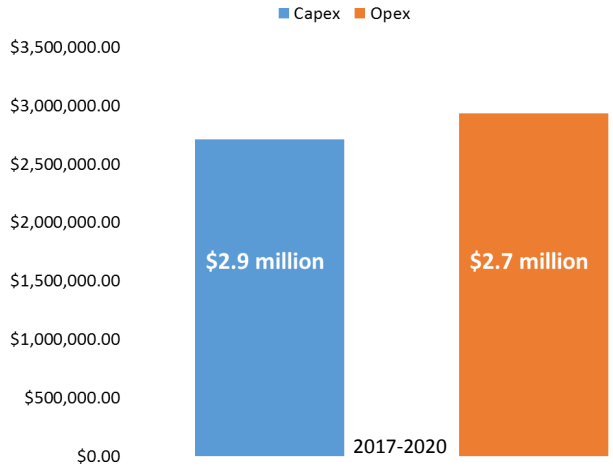
Native licensees reported anticipated capital expenses at 48 % and operating expenses at 52% of projected costs from 2017-2020. **As a results native licensees require a dynamic funding approach to generate both capital and operating funds.**

- Opex to exceed Capex by $200 thousand from 2017 to 2020.
- Both capital and operating expenses are expected to increase over time, with $ 1.5 million in costs anticipated for 2022.*
- Dynamic funding strategies could help native licensees appeal to a broad range of funders to generate revenues to cover operating and capital expenses.

Though both capital and operating funds are needed, industry shifts towards service-based contracts for cyber security software, RF equipment maintenance, and other services will probably rise over time, **increasing native licensees' need for operating funds in the future.**

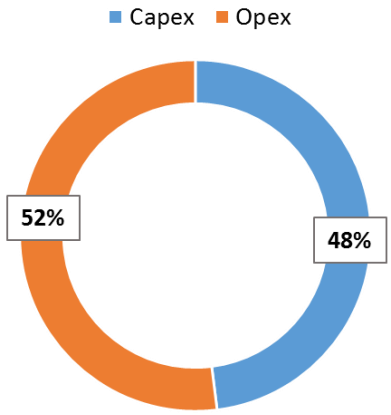
Native licensees reported anticipated Capex and Opex to be roughly even for 2017 to 2020.

Native Licensees Projected Opex and Capex to be Similar Over Time



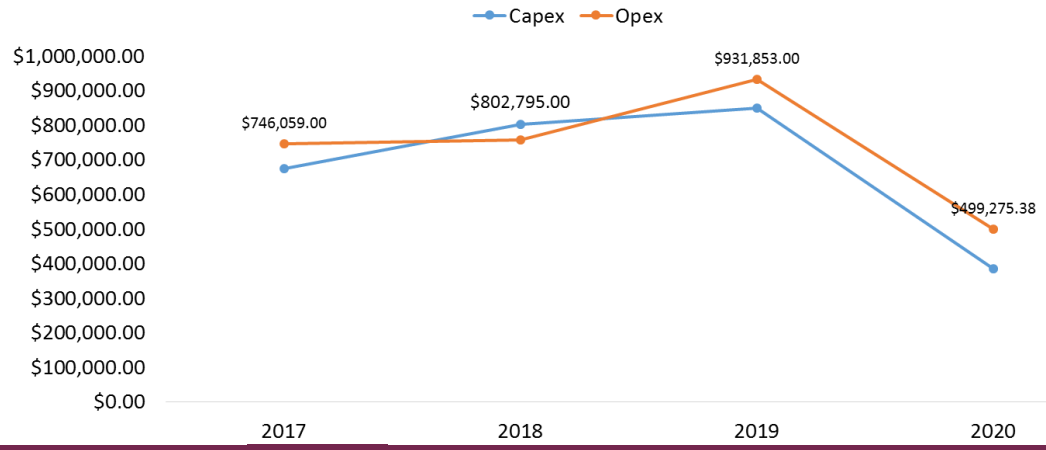
Native licensees reported that anticipated operating expenses exceed capital expenses, but only by $200 thousand, illustrating that a dynamic funding approach will be necessary to obtain funding for operations and maintenance of broadcast capabilities.

Capex and Opex Almost 50-50 in Projected Costs for Native Licensees



Native licensees anticipate Opex and Capex to increase over time but remain similar percentages of anticipated costs, necessitating that licensees develop a funding plan that generates both capital and operating funds.

Anticipated Operating and Capital Expenses are Similar Over Time, Requiring Native Licensees to Adopt Funding Strategies that Generate both Capital and Operating Funds*



* 2020 costs appear to decrease, but that is due to methodological considerations that divided 2020-2022 data inputs by three; when multiplying 2020 values by three analysis shows that overall costs are expected to increase from 2019 to 2022

Production and Master Control Technologies are Highest Projected Opex and Capex for Native Licensees

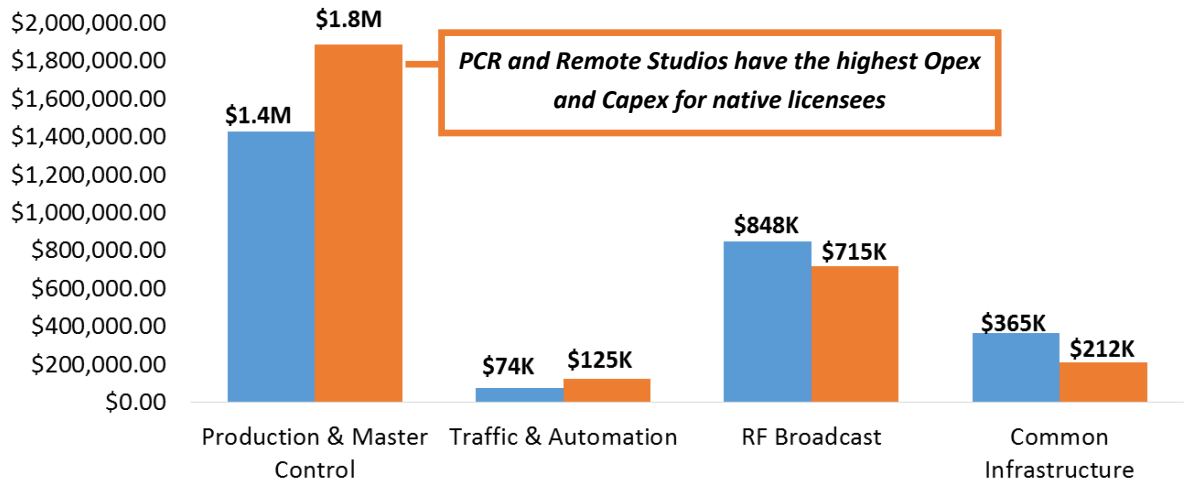
Native licensees reported the highest anticipated capital and operating expenses in Production and Master Control equipment followed by RF Broadcast technologies, **necessitating a dynamic funding approach to cover capital and operating expenses for essential programming and distribution technologies to ensure continued service to native communities.**

- Remote studios and production control room (PCR) technologies make up 91% of anticipated capital and operating expenses for Production and Master Control equipment.
- Total operating costs are projected to be highest for PCR.
- In RF Broadcast technologies, Opex and Capex are highest for antennas and satellites.

Most of these Production and Master Control and RF technologies were previously eligible for PTFP funding; Since 2010, the loss of the PTFP program has correlated to a growing financial need to replace aging production infrastructure and distribution technologies, likely contributing to native licensees' aggregate $5.6 million financial need and $5.5 million gap.

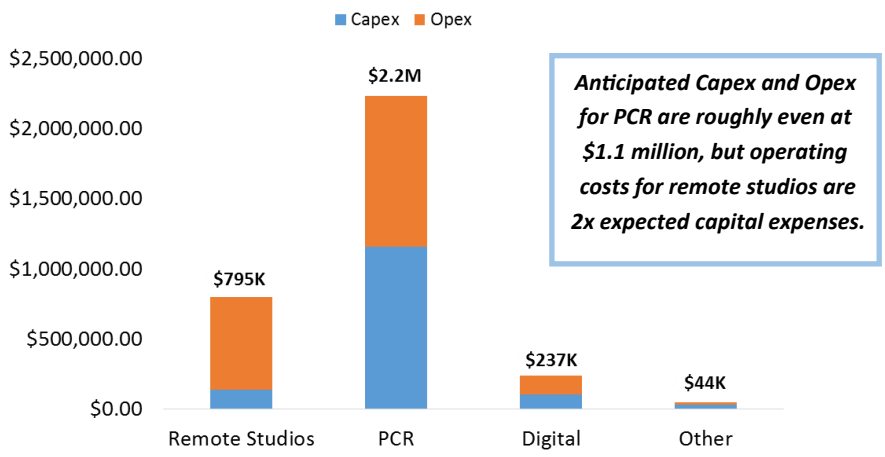
Native licensees reported that Capex are highest for RF Broadcast technologies, necessitating capital campaigns to continue to distribute content to native audiences.

Native Licensees Reported Highest Capital and Operating Expenses in Production & Master Control

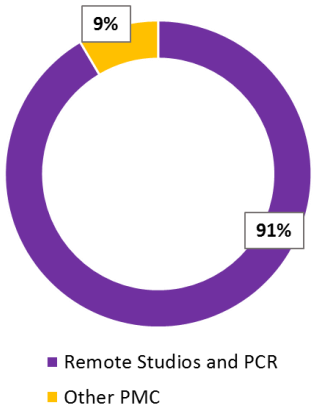


Native radio licensees highest Capex and Opex in Production & Master Control, primarily in PCR and Remote Studios.

PCR Highest Overall Cost in Production & Master Control



Remote Studios and PCR Comprise 91% of Anticipated Expenses



Transmitter-Related Technologies Comprise the Majority of Anticipated RF Equipment Replacements for Native Radio Licensees, Which Could Negatively Impact Licensees' Ability to Broadcast Content

Transmitter encoding, Mux, EAS/CAP (Trans EMEAS) equipment, antennas, and generators/unlimted power supply (UPS) technology replacement contribute to the anticipated $1.5 million in native licensees' RF Broadcast capital expenses from 2017-2020. Equipment replacements are highest in 2018, 2019, and 2020; licensees can prevent future service disruptions by planning for and acquiring necessary capital funds for 17 anticipated replacements in 2018, 13 expected replacements in 2019, and 22 anticipated replacements in 2020.

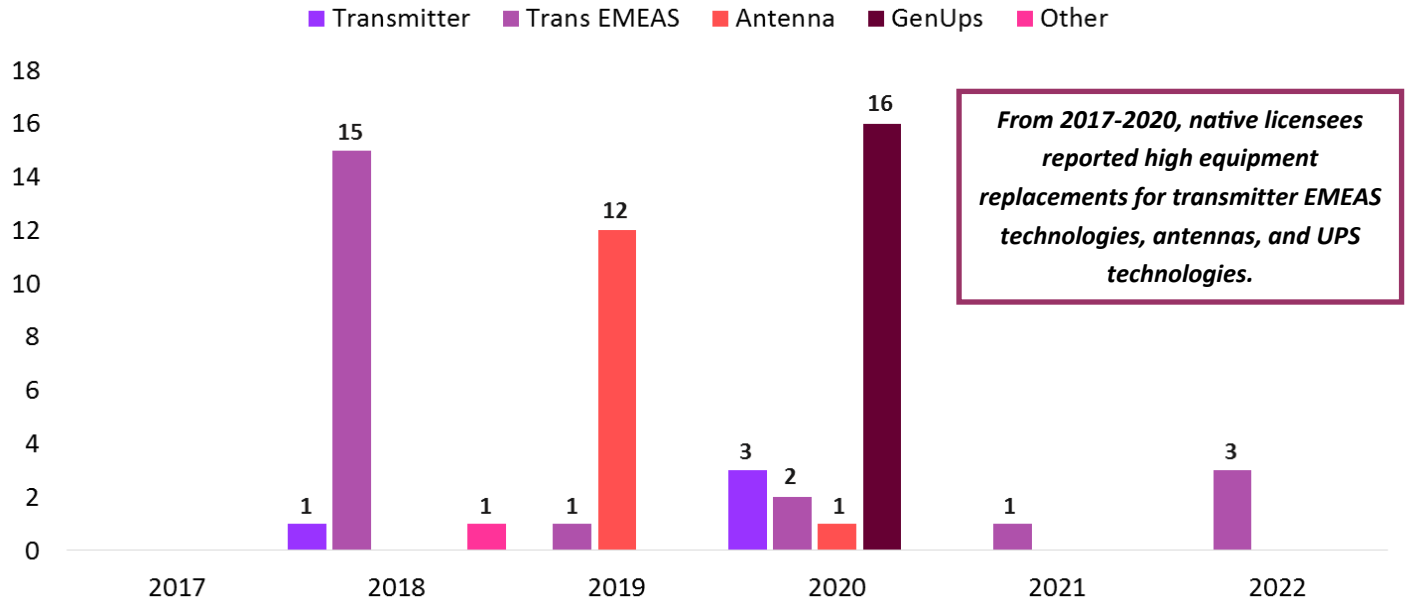
- 24 transmitter and transmitter EMEAS equipment, which are essential for operations, make up the majority of needed RF broadcast equipment replacements by 2022, followed by generator and UPS technologies.

RF broadcast infrastructure replacements are essential to maintain distribution capabilities. Native audiences rely on these technologies to gain access to valuable educational programming, news, and public safety information.

- In addition to transmission equipment, generators and UPS equipment are essential to enable continued broadcast during times of crisis when valuable public safety information is broadcast by radio licensees.

Native radio licensees reported that equipment replacements are highest in 2020, including three transmitters and 16 transmitter EMEAS equipment, which could negatively impact native stations' ability to broadcast if replacement timelines cannot be accommodated with existing funds.

RF Equipment Replacements are Highest in 2020 at 22, 16 of which are UPS Technologies



From 2017-2020, native licensees reported high equipment replacements for transmitter EMEAS technologies, antennas, and UPS technologies.

Native licensees provide native communities with vital access to journalism programming, cultural information, industry knowledge, and public safety information.

Native populations and adjacent rural communities' dependencies on native licensees for news, public safety information, and cultural programming can be compounded by geographical limitations that limit access to broadband and other alternative communications resources.

KILI Radio broadcasts over 30,000 square miles in South Dakota and the panhandle of Nebraska, serving American Indian communities across three reservations and Rapid City, which rely on the station's cultural, public safety, news, and educational information.